

REMARKS

I. STATUS OF THE CLAIMS

Claims 1-18 are currently pending.

II. REJECTION OF CLAIMS 1-5 AND 7-18 UNDER 35 USC 103(A) AS BEING UNPATENTABLE OVER WANG ET AL. (U.S. PATENT NO. 6,826,613 81) AND FURTHER IN VIEW OF BENTLEY ET AL. (U.S. PATENT NO. 5,537,404).

Claims 1-5 and 7-8

Claim 1 of the present application recites a switch relay device comprising "a second physical layer circuit connected to each new device." The Examiner asserts in the outstanding Office Action that Wang teaches a switch relay device comprising "a switch (120) connecting to each new device (i.e. device 130) (Col. 5, L. 5-17, L. 50-65; and figure 1A)." Wang discloses an input processor 222 connected to a client 110, an output processor 229 connected to one of the devices 130, 135 and 236, and a switch fabric 226, connected between the input processor 222 and the output processor 229, for receiving a message from the client 110 and selecting one of the devices 130, 135 and 236 that receives the message using the forwarding table 227. See FIG. 2A of Wang.

Wang teaches two output port processors 228 and 229. Wang does not teach "a second physical layer circuit connected to each new device" (See claim 1; and elements 18a-18c and 7-9 of FIG. 2 of the present application). Instead, the switch as taught in Wang serves as a virtual IP host, receiving a message from the client and selecting a device to receive the message from among the cluster devices in communication with the switch. See column 5, lines 52-56; and FIG 2A. Accordingly, Wang does not recite "a second physical layer circuit connected to each new device."

Additionally, Wang does not teach that the switch fabric 226 does not reconfigure the network when the at least one of a new device is connected or disconnected or when at least one of the new devices is switched.

On page 2 of the outstanding Office Action, the Examiner concedes that "Wang fails to teach a first physical layer circuit of the switch connected to the network; a second physical layer circuit of the switch connected to the device; and a link layer circuit, which is connected between

the first physical layer circuit and the second physical layer circuit, to separate the first physical layer circuit and the second physical layer circuit from each other, wherein the link layer circuit does not reconfigure the network when the at least one of a new device is connected or disconnected or when at least one of the new devices is switched.” The Examiner states that it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings in Bentley, with the teachings of Wang to arrive at the invention recited in Claim 1 of the present application.

Bentley discloses a data link layer (layer 2), coupled between a network layer (layer 3) and a physical layer (layer 1), for performing insertion and deletion of transmission, and a reconnect manager 52 for attempting to obtain a channel connection between the layer 2' and the layer 1. See FIG 1; Column 2, lines 15-20 and lines 27-28; and Column 6, lines 15-25. Bentley does not teach that the data link layer (layer 2) or the reconnect manager 52 does not reconfigure the network when the at least one of a new device is connected or disconnected or when at least one of the new devices is switched.

Therefore, it is respectfully submitted that none of the references, taken individually or in combination, discloses or suggests a link layer circuit that does not reconfigure the network when the at least one of a new device is connected or disconnected or when at least one of the new devices is switched.

The above comments are specifically directed to claim 1. However, it is respectfully submitted that the comments would be helpful in understanding various patentable differences of various other claims over the cited references.

In view of the above, it is respectfully submitted that the rejection has been overcome.

Claims 9-11:

Claim 9 of the present application recites “a control unit for detecting whether the at least one new device is connected or whether at least one of the new devices is switched by the switch, and for not reconfiguring the network when connection or switching is detected.”

Wang recites a switch being used as a virtual storage device wherein physical devices can be added to, replaced on or removed from a network without reconfiguring network clients or applications running at levels above the network clients. See column 1, lines 15-22. However, neither Wang nor Bentley disclose a control unit for detecting whether the at least one new device is connected or whether at least one of the new devices is switched by the switch, and for

not reconfiguring the network when connection or switching is detected, as recited in claim 9 of the present application.

Additionally, neither the switch fabric 226 of Wang, nor the data link layer (layer 2) (or the reconnect manager 52) of Bentley function as the control unit of the present invention as recited in claim 9 of the present application.

The above comments are specifically directed to claim 9. However, it is respectfully submitted that the comments would be helpful in understanding various patentable differences of various other claims over the cited references.

In view of the above, it is respectfully submitted that the rejection has been overcome.

Claims 12-18:

Claim 12 of the present application recites, "wherein the network physical layer circuit functions as a single node with respect to a network, even though the plurality of devices are connected or disconnected to the device physical layer circuits."

Bentley teaches that stacks of layers are provided for each channel in ISDN; specifically, multiple B-channels and a D-channel. For the D-channel there is a control protocol stack and for each B-channel there is a user protocol stack. A typical hierarchy for a user protocol stack includes a network layer (layer 3). See Fig 2; and column 2, lines 9-20. Because multiple B-channels are present in Bentley, multiple network layers (layer 3) are present. Accordingly, Bentley does not teach "wherein the network physical layer circuit functions as a single node with respect to the network, even though the plurality of devices are connected or disconnected to the device physical layer circuits" as recited in claim 12 of the present invention." Additionally, neither the switch fabric 226 of Wang nor the data link layer (layer 2) (or the reconnect manager 52) of Bentley function as the network physical layer of the present invention.

The above comments are specifically directed to claim 12. However, it is respectfully submitted that the comments would be helpful in understanding various patentable differences of various other claims over the cited references.

In view of the above, it is respectfully submitted that the rejection has been overcome.

III. REJECTION OF CLAIM 6 UNDER 35 USC 103(A) AS BEING UNPATENTABLE OVER WANG AND BENTLEY AS APPLIED TO CLAIM 1 ABOVE AND FURTHER IN VIEW OF MINAKUCHI ET AL. (US 2001/0002365 A1)

Claim 6 is dependent from claim 5. Therefore, the comments in Section II, for distinguishing over Wang and Bentley, also apply here.

Although the above comments are specifically directed to claim 6, it is respectfully submitted that the comments would be helpful in understanding various differences of various other claims over the cited references.

In view of the above, it is respectfully submitted that the rejection is overcome.

IV. CONCLUSION

In view of the above, it is respectfully submitted that the application is in condition for allowance, and a Notice of Allowance is earnestly solicited.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

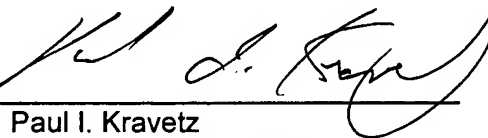
Respectfully submitted,

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September 5, 2006

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